

IN THE CLAIMS

Please amend claims 20-25, 27-28, 32-35, 37-40 and withdraw claims 55-74 and 78-81 as follows:

1.-19. (CANCELED)

20. (CURRENTLY AMENDED) A self-service terminal comprising a plurality of peripheral devices connected to a central processor and controlled by that central processor, each of the peripheral devices having an independent associated control application, the independent associated control applications being operable to communicate with each other; whereby, in use, a peripheral device operates in response to a signal generated by the central processor or another peripheral device.

21. (CURRENTLY AMENDED) A terminal according to claim 20, wherein the independent associated control applications communicate with each other using a peer-to-peer communication protocol.

22. (CURRENTLY AMENDED) A terminal according to claim 20, wherein the independent associated control applications communicate with each other using broadcast signals, in order to communicate a present state of the peripheral devices.

23. (CURRENTLY AMENDED) A terminal according to claim 20, wherein the independent associated control applications communicate with each other using signals addressed directly to selected peripheral devices so that a peripheral device only communicates with those peripheral devices whose operation depends on or is connected with the state of that peripheral device.

24. (CURRENTLY AMENDED) A terminal according to claim 20, wherein an independent associated control application that operates in response to a signal communicated from another peripheral device acknowledges receipt of that signal.

25. (CURRENTLY AMENDED) A terminal according to claim 24, wherein each independent associated control application is operable to identify any failed peripheral device that does not acknowledge receipt of a signal, and to communicate the functional state of that failed peripheral device to other independent associated control applications.

26. (ORIGINAL) A terminal according to claim 20, wherein each peripheral device uses a registry for maintaining a record of the functioning peripheral devices in the terminal.

27. (CURRENTLY AMENDED) A terminal according to claim 20, wherein the independent associated control applications implement a team-building process for indicating their availability.

28. (CURRENTLY AMENDED) A terminal according to claim 27, wherein as part of the team-building process, each independent associated control application associated with an available peripheral device transmits a start-up signal.

29. (ORIGINAL) A terminal according to claim 28, wherein the start-up signal includes an identifier for the peripheral device being initialized and an address at which the peripheral device receives signals.

30. (ORIGINAL) A terminal according to claim 29, wherein the start-up signal is broadcast to other peripheral devices.

31. (ORIGINAL) A terminal according to claim 29, wherein the start-up signal is communicated directly to predetermined addresses that correspond to other peripheral devices.

32. (CURRENTLY AMENDED) A terminal according to claim 20, wherein the independent associated control application associated with each peripheral device creates a functional group registry comprising the addresses and identity of each peripheral device that has sent a startup signal.

33. (CURRENTLY AMENDED) A terminal according to claim 32, wherein each independent associated control application transmits a shut-down signal when its associated peripheral device is no longer able to operate properly, each independent associated control application being operable to modify its functional group registry in response to a shut-down signal from another peripheral device to indicate the removal of that peripheral device from operation.

34. (CURRENTLY AMENDED) A terminal according to claim 20, wherein, in use, each of the independent associated control applications are executed on a single central processor.

35. (CURRENTLY AMENDED) A terminal according to claim 20, wherein, in use, each of the independent associated control applications is executed on a processor within its associated peripheral.

36. (ORIGINAL) A terminal according to claim 20, wherein the peripheral devices are selected from the following peripheral devices, namely: a user interface, a card reader, a receipt printer, a cash dispenser, and a bar code scanner.

37. (CURRENTLY AMENDED) A self service terminal network, where the network comprises a server in communication with a terminal, the terminal including a plurality of peripheral devices connected to a central processor and controlled by that central processor, each of the peripheral devices having a different independent associated control application operable to communicate with the other independent associated control applications, so that a peripheral device operates in response to one or more signals generated by the central processor or the independent associated control application of another peripheral device.

38. (CURRENTLY AMENDED) A terminal network according to claim 37, wherein the independent associated control application associated with each peripheral device has direct access to the server.

39. (CURRENTLY AMENDED) A terminal network according to claim 37, wherein the independent associated control application associated with each peripheral device accesses the server indirectly.

40. (CURRENTLY AMENDED) A peripheral device for use in a self service terminal, the terminal having a plurality of peripheral devices connected to a central processor and controlled by that central processor, each of the peripheral devices having an independent associated control application that is operable to communicate the internal states of the peripheral device to other peripheral devices in the terminal and to operate in response to signals communicated from the central processor or independent associated control applications of the other peripheral devices.

41.-54. (CANCELED)

55. (WITHDRAWN) A transaction processing terminal comprising a plurality of networked peripheral devices, each of the networked peripheral devices having an independent associated control application that interoperate through broadcasting their associated networked peripheral devices' internal states to one another.

56. (WITHDRAWN) A networked peripheral device having an independent associated control application that operates through broadcasting the networked peripheral device's internal states to independent associated control applications of other peripheral devices in a connected system comprising a transaction processing terminal.

57. (WITHDRAWN) A peripheral device having an independent associated control application that operates in response to independent associated control applications of other peripheral devices broadcasting their peripheral devices' internal states in a connected system comprising a transaction processing terminal.

58. (WITHDRAWN) A peripheral device that operates as a state machine based upon states communicated through interfaces to hardware components under control of the peripheral device, and based upon messages received from other peripheral devices over a connected network comprising a transaction processing terminal.

59. (WITHDRAWN) A transaction processing terminal comprising a plurality of networked peripheral devices that interoperate through peer-to-peer communications with one another, and a firewall enabling communications between the networked peripheral devices and a server connected on the network, but blocking the peer-to-peer communications between the networked peripheral devices from being transmitted to the server.

60. (WITHDRAWN) A plurality of networked peripheral devices that announce each other's functional departure from a system by broadcasting the identity of any networked peripheral device not acknowledging receipt of a previous communication.

61. (WITHDRAWN) A peripheral device that announces the functional departure of other peripheral devices from a connected system comprising a transaction processing terminal by broadcasting the identity of any peripheral device failing to acknowledge receipt of a previous communication.

62. (WITHDRAWN) A peripheral device that records the functional departure of other peripheral devices from a connected system comprising a transaction processing terminal by deleting reference in an internal registry to any peripheral device announcing its shutdown or failing to acknowledge receipt of a previous communication.

63. (WITHDRAWN) A server device that operates both as a repository for software used by a plurality of interoperable peripheral devices communicating over a connected network comprising a transaction processing terminal, and as a proxy server for data required by at least one of the peripheral devices to process a transaction.

64. (WITHDRAWN) A peripheral device that interoperates as part of a functional group of peripheral devices between which messages are exchanged over a connected network, where the messages include identifiers of the sending device and of the functional group, and where the functional group comprises a transaction processing terminal.

65. (WITHDRAWN) A peripheral device that interoperates as part of a functional group of peripheral devices between which messages are exchanged over a connected network, where the messages are in the form of serialized objects that are reconstructed upon receipt, and where the functional group comprises a transaction processing terminal.

66. (WITHDRAWN) A peripheral device that announces its initialization by broadcasting a message to other peripheral devices that interoperate as a group over a network, where said group comprises a transaction processing terminal.

67. (WITHDRAWN) A peripheral device that initializes its operations by transmitting a message to other peripheral devices that interoperate as a group over a network, where the message includes identifiers of the device and a port address at which the device receives messages, and where said group comprises a transaction processing terminal.

68. (WITHDRAWN) A peripheral device that initializes its operations by transmitting a start-up message to a range of addresses on a connected network at which the message may be received by one or more other peripheral devices that interoperate as part of a functional group comprising a transaction processing terminal.

69. (WITHDRAWN) A peripheral device that initializes its operations by transmitting a start-up message used to create a registry of multiple peripheral devices that interoperate as part of a functional group comprising a transaction processing terminal, where the registry is used to identify the devices that are functionally present and to direct communications within the functional group.

70. (WITHDRAWN) A peripheral device that announces its shutdown by broadcasting a message to other peripheral devices that interoperate as a group over a network, where said group comprises a transaction processing terminal.

71. (WITHDRAWN) A peripheral device that terminates its operations by transmitting a closing message used to delete reference to the peripheral device from a registry of multiple peripheral devices that interoperate as part of a functional group, where the registry is used to identify the devices that are functionally present and to direct communications within the functional group, said functional group comprising a transaction processing terminal.

72. (WITHDRAWN) A functional group of peripheral devices that interoperate through communications over a connected network in which each device synchronously maintains a dynamic registry used to identify the devices that are functionally present and to direct communications within the functional group of devices, where said functional group comprises a transaction processing terminal.

73. (WITHDRAWN) A networked peripheral device having a memory queue storing incoming messages from other peripheral devices that are part of a functional group, where the messages are stored in the queue in the order received and the device accesses the oldest stored message first and deletes a message from the queue once the message is accessed, and where said functional group comprises a transaction processing terminal.

74. (WITHDRAWN) A transaction processing terminal comprising a plurality of networked peripheral devices including a user interface that removes otherwise available services from a displayed user menu when an associated peripheral device is functionally absent.

75.-77. (CANCELED)

78. (WITHDRAWN) A peripheral device for a transaction processing terminal including a dedicated processor, read/write memory and an I/O port, and further including a web server facility enabling communications over a connected IP network between the peripheral device and a remote terminal using a web browser utility executing on the remote terminal.

79. (WITHDRAWN) A peripheral device for a transaction processing terminal including a dedicated processor, read/write memory and an I/O port, and further including state of health and diagnostic facilities accessible by a remote terminal over a connected IP network.

80. (WITHDRAWN) A peripheral device for a transaction processing terminal including a dedicated processor, read/write memory and an I/O port, and further including state of health and diagnostic facilities accessible by a remote wireless PDA terminal over a connected IP network.

81. (WITHDRAWN) A peripheral device for a transaction processing terminal including a dedicated processor, read/write memory and an I/O port, and configured to communicate notice of error and designated state of health conditions to a remote terminal over a connected IP network.

82.-87. (CANCELED)